Doing well by doing good: business cases for forests, people and biodiversity

Insights from the ongoing research project ‘Business Cases for Biodiversity’

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Our research

Scope

Research project ‘Business Cases for Biodiversity’ funded by the Dutch Ministry of Economic Affairs, Agriculture and Innovation (ELI), carried out by the Copernicus Institute of Utrecht University, Nyenrode Business University and WWF Netherlands.

The project provides content and process knowledge for practitioners aiming to develop business with a positive effect on biodiversity.

Progress and plans:

- Collection and analysis of >150 examples of business cases across sectors
- In-depth interviews
  - Toolkit for practitioners: business developers, financial parties, NGOs, governments (in progress)
  - Assistance in scaling up (next phase)
Focus on forest ecosystems

Present some key insights into business cases with positive ecological and social impacts

- The business case for biodiversity
- Key categories of (emerging) sustainable business cases:
  - forest-based products (timber, NWFPs, agroforestry)
  - and ecosystem services (biodiversity, carbon, water)
- Key success factors, lessons learnt
- Financing needs

McKinsey Global Survey (2010) results: biodiversity is the next environmental issue for business – comparable to climate change in the public debate in 2007
What makes a biodiversity business case?

**Increased yields**
- Tradin Ethiopia, sesame

**New products**
- Resins from pine, Gaviotas, Colombia

**Higher quality products**
- Shaded cocoa, Fairtrade

**Marketing & Branding**
- Agroforestry Sumatra

**Regulation and control**
- Malua Biobank Malaysia

**CSR, license to operate**
- Chiquita/RA Latin America
• Certification (FSC and other standards) is strongly expanding, but this is much less the case in the tropics.
• There is evidence of the positive impacts of certification schemes on ecosystems and biodiversity, yet this needs to be further explored.
• Financial challenges: geographically concentrated nature of forestry projects; the perceived high risks (including country risk; disasters and reputation of the sector); the required long-term horizon of finance, and limited returns.
Non-wood forest products

- Ca. 80% of people in the developing world depend on NWFPs for food (incl. bushmeat), fibers and medicines.
- About 150 NWFPs are traded on the international commodity markets. The reported value of NWFP removals amounted to about US$4.7 billion in 2005, yet the true market value is probably many times higher.
- Success depends upon a number of factors, including the nature of government polices and their enforcement, property rights, market transparency, business management skills and of course the pressure on NWFP resources.
• Agroforestry systems can offer increased productivity and important social and ecological benefits
• Products include coffee, cocoa, medicinal plants, spices, fruits, biofuels and materials
• Ecological advantages include
  – maintenance of species and habitat within productive landscapes
  – buffering of protected areas and ecological corridors
  – carbon sequestration
  – reducing pressure on natural forests by increasing soil fertility and crop yields
• **Socio-economic impacts:**
  
  In Malawi, maize yields are typically 2-3 times higher when the crop is grown under a canopy of *Faidherbia albida* due to better soil fertility and soil water conservation provided by the trees.

  In both Zambia and Malawi, over 100,000 farmers have extended their conservation farming practices to cultivate food crops with *Faidherbia*.

  In Niger, > 4.8 million ha of *Faidherbia* agroforests, significantly enhancing millet and sorghum production, as well as farmers’ incomes.

• **Biodiversity impacts:**

  Rubber smallholdings with tree crops in Indonesia: over 3.3 million ha, containing 60–80% of the biodiversity of forest.
Payments for ecosystem services: biodiversity

- There is a large financing gap for conservation. Annual costs of protection of natural capital: US$ 355-385 billion (Parker & Cranford, 2010); costs of inaction: 10-100 fold this value.
- There are few cases of business involvement in forest conservation per se.
- Ecotourism, if implemented properly, can contribute to conservation. Payments can be directed to conservation, as with park fees.

A review by Krüger (2005) of 178 cases showed:
- in 25% of the cases, ecotourism led to more conservation (more effective control or new conservation areas)
- in 16% of the cases, revenues were created for local communities

- Biodiversity mitigation banking
E.g. the Business and Biodiversity Offsets Program BBOP: an international partnership of some 40 NGOs, companies, governments, and financial institutions developing best practice on biodiversity offsets.
PES biodiversity, example

- Ecolodges Indonesia
- Malua Biobank, Sabah, Malaysia: sale of Biodiversity Conservation Certificates in support of forest conservation and regeneration. The US$ 100 million Eco-products Fund is the principal financial investor.

- Water markets in several countries in Latin America (Colombia, Costa Rica, Ecuador, Guatemala)
Payments for ecosystem services: carbon

- Forest carbon projects have been implemented for >20 years to mitigate climate change, with >20.8 million tons CO$_2$ transacted in >200 projects (The Katoomba Group, 2011)
- When regulated, REDD financial flows could reach up to 30 billion US$ per year
- Frontrunners may engage in voluntary REDD, at an expected lower cost
- Carbon services with additional social and ecological benefits (‘cuddle carbon’) often more attractive than carbon ‘as a commodity’
- Key risks identified by stakeholders include
  - uncertainty around whether or not regulatory markets will include forest carbon
  - a lack of clarity on legal issues associated with project design and transactions
  - a lack of approved methodologies for measuring forest carbon
  - high pre-development costs for carbon measurement and forest management plans, prior to an accurate assessment of potential revenues.
- A number of tools can help mitigate risk associated with forestry projects (guarantees, insurance, (forest) bonds, securitization).
PES Carbon, example

- ‘Cuddle carbon’ by CO2Operate: agroforestry and forest regeneration in West Sumatera, community based approach
• Interest in payments for watershed services (PWS) as a tool for watershed management in developing countries is growing

• Often driven by government regulation: e.g. Colombia, Costa Rica

• A review study of 41 payments for water services schemes reported in 2002 concludes very few were still proceeding six years later, while many of the early proposals did not materialize (Porras et al., 2008).

• The reasons vary and include political unrest and lack of political and financial support.
PES Water, example

- Sierra de las Minas Biosphere Reserve Water Fund, Guatemala, operational since 2006
- Establishment of the fund through initial support from WWF and the Swiss Re insurance company, combined with subsequent support from the Critical Ecosystems Partnership Fund, Austrian Development Agency (ADA), USAID, DANIDA, and CARE. Current support from Coca-Cola.
Possibilities for scaling up of business cases for biodiversity and ecosystem services:

- Increasing the *turnover* of the project
- **Broadening**: increasing the number of ecosystem services for which payments are provided and thus create new revenue streams; bundling of ecosystem services payment in integrated landscape-based approaches
- **Expansion** in space: application of the case in a wider area
- **Replication**: application of the case in other areas or countries (making the necessary adjustments).
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<th>Type</th>
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<td>Delaware wetland banking, Tresor Guyana, Malua Bio Bank</td>
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<td>Carbon services</td>
<td>CO2Operate Agroforestry Indonesia Clear Sky Climate Solutions*</td>
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<td>Ecotourism</td>
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* = combination of services/products
Lessons

• Until carbon markets get more secure, payments for forest ecosystem services by private parties will likely remain limited. Government regulation for carbon (REDD and REDD+) and public investments (for water schemes) are key to achieve scale.

• Product-related markets (sustainable timber, NWFPs, agroforestry products) still offer significant development opportunities, with large potential wins for people and biodiversity.

• The enabling environment (land tenure problems, poor governance) remains a key impediment to successful business cases (all types).

• The availability of finance is often not the key bottleneck. The logical road to finance is to access national sources first, then international ones.

• Project owners and other stakeholders must better understand the financial and technical aspects of the business case.

• Good communication between project team, stakeholders and financiers is key to understand each other’s needs.

• The importance of managerial quality is often overlooked: the capacity to develop high quality projects and business plans is key to success, but often poorly developed.

• Market development can be actively promoted through network activities for investors, project managers, NGOs and governments.
Understand the financing needs and barriers to scale up:

• Financing needs differ significantly for different parts in the value chain (including the nature and size of the finance gap).

• Finding the appropriate funding source is key. This depends on the stage of development: 1) Grants for exploration of ideas; 2) Seed capital for elaboration of detailed proposals; 3) Venture capital for up-scaling; 4) Bank loans for running business.

• Smart solutions are needed to deal with uncertainty and risk. For instance, risk-taking entrepreneurs can play an important role in the start-up (pre-VC) phase.

• Governments and NGOs can improve attractiveness of forestry investments, e.g. by moving beyond microfinance of individual projects, towards creation of funds covering risk and promoting the match between demand and supply and by focusing on landscape solutions.

• Sustainable sourcing policies by governments can be very effective to stimulate market development.